

Evolution of Supply Chain Management

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Abstract – The management of flow of inventory and services involves the transformation of raw material into the end order fulfillment. This transformation comprises of number of interconnected networks to form a Supply Chain Management Unit. This dissertation concentrates on evolution of Supply Chain Management. The purpose of using Supply Chain Management tools is to improve the business process and make it more competitive in the market. Improving the product in multidimensional way is the key function of the Supply Chain Management. A systematic study of different dimensions of Supply Chain is done under this study also it tries to describe Supply Chain Management from the areas of Operations Management and Logistics Management. Various theories of Supply Chain Management are also covered in this study.

Key Words: inventory, raw material, Supply Chain Management, business process.

1. INTRODUCTION

The process of production in any of the industries begins with the introduction of raw material and called as successfully finished when the product is timely delivered to an end user. Numbers of different definitions of Supply Chain Management are described in this paper. The industry works on various functions, processes and chain members of the industry and analyses the impact of their interaction for maximization of the profit. These entire interrelationship and inter-linkages come under the control of Supply Chain Management.

1.1 Importance of Supply Chain management (SCM)

If any of the organizations wishes to compete in the global market it has to rely on the effective SCM. With up gradation many organizations are successfully operating on collaborative supply network which helps each partner of the collaboration to work on a specific aspect of SCM in detail and arrange it in the way to extract maximum efficiency out of it. Arranging enough medical supply wherever needed as well as donating the surplus to other jurisdictions according to requirements during the Covid 19 pandemic is a perfect example of supply chain management.

2. OBJECTIVES

As the SCM has become one of the most important factors to run an organization, its systematic study to understand the evolution of Supply Chain Management as well as its dimensions is needed to be done.

Operations Management, Value Chain Management and Logistics Management are different areas related to SCM which consists of functional areas like Manufacturing, Purchasing, Demand Planning, Warehouse Transportation, Inventory Management and Customer Service. Here he SCM is described adequately out of all these parameters.

SCM process is made up of different parties such as manufacturer, retailer, and supplier. The purpose of everyone among them is to add value in their products during upstream as well as downstream, by using multiple orthodox channels where the proper flow of resources and information takes place. Number of businesses are getting integrated together to achieve this proper flow of resources and information.



Fig -1: Different areas of Supply Chain Management

2.1 Evolution and Definitions of Supply Chain Management

Table -1: Numbers of different definitions of Supply Chain Management

Definitions	References
A supply chain is a network of facilities that performs the function of procurement of material to intermediate and finished products, and distribution of finished products to customers.	Lee and Billington (1993)
Supply chain management integrates two business functions, it manages immediate relationships with suppliers, and it also integrates chain of supplier's suppliers and a customer's customers and so on. It is the	Harland (1996)

management of interconnected business involved in the ultimate provision of products and service packages required by end users.		responsible for managing the buying as well as managing the flow of orders and information” is no longer valid. Today all the related aspects such as improving customer service, mitigating supply chain risk, reducing wastes, improving new product design process and enhancing product service quality are treated as an integral part of supply chain management.	al. (2009)
Supply Chain Management attempts to ensure that the expertise of any member of supply chain shared throughout the supply chain. By sharing the expertise, a firm will be able to improve on customer value as well as gain competitive advantage in the market.	Spekman et al. (1998)		
Supply chain management is the integration of various concepts such as extended enterprise, the virtual organization, the virtual value chain and green supply chain. These aspects are important from the perspective of strategy and operations for an industry.	Walton and Gupta (1999)	Supply Chain Management as a concept manages the flow of material, information and funds end to end i.e. from upstream to downstream members. It also deals with the disposal of material after consumption as per the environmental norms. SCM tries to achieve this at the lowest cost with maximum efficiency.	Dubey et al. (2012)
SCM can be seen from many perspectives such as system engineering, economics, sociology and management.	Skojett-Larsen (1999)	Supply Chain Management incorporates supply and demand management inside and across companies.	Randall and Mello (2012)
Supply Chain Management involves processes which help a firm to improve its competencies by synchronizing operations to include source, make and deliver processes in collaboration with channel partners and suppliers.	McCormack and Kasper (2002)	SCM is a methodology of improving the business processes, making them more resilient, more agile and as a result, more competitive. The main function of SCM is to improve the product or service competitiveness.	Machowiak (2012)
Supply chain management is not only limited to logistics activities and planning and control of materials and information flow internally within the company or externally between companies. It also deals with the strategic decisions such as inter-organizational issues, alternative organizational form to vertical integration. It is also the management of relationship between suppliers and customers.	Chen and Paulraj (2004)	Supply Chain Management may be defined as the management of upstream and downstream associations with vendors and customers to provide better customer value at least cost to the supply chain.	Dubey and Ali (2013)
SCM should not be studied alone and its interest should not be only industrial development. Concepts such as market orientation, relationship marketing should be studied with SCM. There is a need of new boundaries of SCM which can incorporate all these concepts into SCM.	Sachan and Datta (2005)	Supply chain management now has a new strategic dimension to it which is e-procurement.	Chang et al. (2013)
Supply chain management is increasing its dimensions. Being efficient is not enough; Companies are now looking for sustainable and environmental friendly supply chain.	Vachon and Klassen (2007)		
The challenge of SCM is to identify and implement strategies that minimize cost while maximizing flexibility in an increasingly competitive and complex market.	Wadhwa et al. (2008)		
In INDIA, supply chain cost can be divided in two main categories: a) Distribution cost: which is generally logistics cost b) Inventory value and inventory holding costs: which mainly consist of cost of inventory and cost of keeping inventory in storage location	Parkan and Dubey (2009)		
The definition that “SCM is primarily	Melnyk et		

3. OPETRATIONS MANAGEMENT

The activities performed under the Operations Management are manufacturing of the product according to the design provided by respected department as per the customer requirements, packaging of the product and using best marketing techniques to create an impact on the market and supplying the products to the right retailers.

The Operation Management deals with the tasks that are performed inside the company and the role of Supply Chain Management is introduced when it comes to deal with tasks that are performed outside of the company such as arranging the raw material and delivering product to the market.

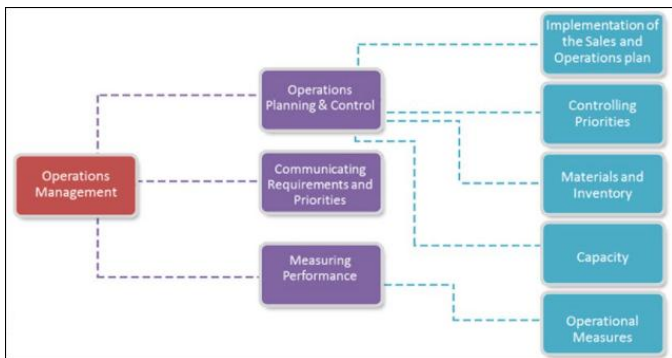


Fig -2: Operations Management

4. VALUE CHAIN MANAGEMENT

The concept of value chain was introduced by Michael Porter. According to the Porter’s statement value is the amount that customers are willing to pay for the respected product provided by firm. Michael Porter designed a value chain based on nine generic value added activities which works together to provide value to customers.

The Supply Chain Management deals with the flow of products as well as services provided for the product and also take the charge of waste reduction which ultimately results in the efficiency improvement. The Value Chain Management keeps an eye on the customer demands and the cash flow. Customer’s satisfaction by fulfilling the demands within the decided specific time is the top most priority of value chain.

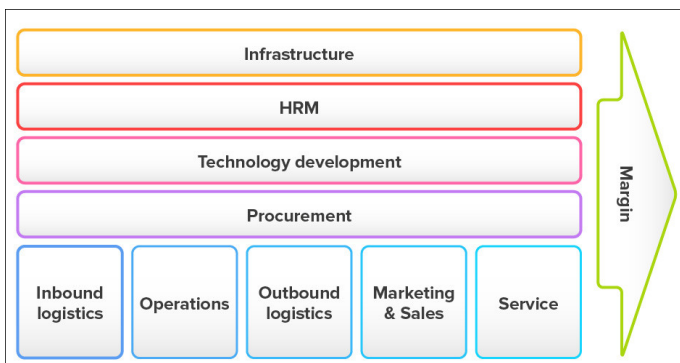


Fig -3: Generic value added activities by Michael Porter

The center of attention of Supply chain is on cutting in costs and reaching the strategic goals, whereas value chain focuses more on marketing, research and development, after sales services, return on assets, return on investments, and profitability. Supply Chain Management and Value Chain Management are needed to be integrated to improve the eminence of Business.

5. LOGISTICS MANAGEMENT

Logistics refers to the overall process of managing how resources are obtained, stored, and sent to their final destination. Logistics management involves recognizing the prospective distributors and suppliers and calculates their accessibility and efficacy. The five types of Logistics

Management are; procurement logistics, production logistics, sales logistics, recovery logistics, and recycling logistics.

Logistics is a peculiar part of Supply Chain Management where the movement of product from origin to the destination is observed and controlled.

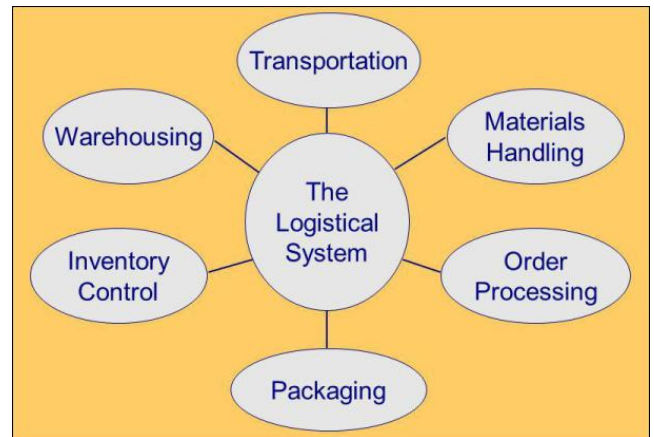


Fig -4: Logistical System

6. CONCLUSIONS

From the above study, conclusions drawn are;

1. The Supply Chain Management is such a unit without which a business cannot be run successfully. SCM comprises of number of sub departments and multiple tasks under SCM are divided among these departments.
2. Operations Management, Value Chain Management and Logistics Management are different areas related to SCM and the thin line that separates these terminologies is studied under this study.

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